WHAT IS CLAIMED IS:

1. A method for controlling an amount of power that may be applied to a power amplifier of a transmitter unit of a satellite-based data communications system, the method comprising:

delivering a transmission signal from a satellite modem to the transmitter unit of the satellite-based data communications system;

monitoring a direct current component of an input signal applied to the power amplifier of the transmitter unit to determine when the direct current component of the input signal applied to the power amplifier exhibits a predetermined characteristic;

in response to control signals received from a selected element of a the satellite-based data communications system, allowing for increased input signal power to be applied to the power amplifier of the transmitter unit so long as the direct current component of the input signal applied to the power amplifier does not exhibit the predetermined characteristic; and

preventing increased input signal power from being applied to the power amplifier of the transmitter unit when the direct current component of the input signal exhibits the predetermined characteristic.

2. The method of claim 1, wherein the transmitter unit comprises a transmitter/receiver (transceiver) unit.

3. The method of claim 1, wherein the step of preventing increased input signal power from being applied to the power amplifier of the transmitter unit comprises controlling a level of the input signal within the transmitter unit with an automatic gain or level control circuit.

4. The method of claim 1 further comprising:

generating a signal indicative of the level of output signal power bring produced by the transmitter unit; and

transmitting, via the transmitter unit and to a satellite of the satellite-based data communications system, a signal descriptive of the level of output signal power currently being produced by the transceiver unit.

5. The method of claim 4 further comprising:

transmitting from the selected element of the satellite-based communications system to the satellite modem a signal for effecting a variation of the level of output signal power being produced by the transmitter unit.

6. The method of claim 1 wherein the selected element of the satellite-based communications system comprises either a satellite or a satellite communications network.

7. A system for regulating an amount of power provided to a power amplifier of a transmitter unit of a satellite-based data communications system, the system comprising:

a modem for delivering a transmission signal to the power amplifier of the transmitter unit and for regulating an amount of input signal power to be provided to the transmitter unit;

a current monitor for monitoring a level of a direct current provided to the power amplifier of the transmitter unit; and

a circuit for preventing an increased amount of power from being provided to the power amplifier of the transmitter unit when the level of the direct current provided to the power amplifier achieves a predetermined threshold.

8. The system of claim 7, wherein the transmitter unit comprises a transmitter/receiver (transceiver) unit.

9. The system of claim 7, wherein the circuit for preventing an increased amount of input signal power from being applied to the power amplifier comprises an automatic gain or level control circuit.

10. The system of claim 7, wherein the circuit for preventing an increased amount of input signal power from being applied to the power amplifier comprises a processor that discontinues an operation of the transmitter unit when the level of the direct current provided to the power amplifier achieves the predetermined threshold.

11. A circuit for regulating an amount of power to be provided to a power amplifier of a transmitter unit of a satellite-based data communications system, the circuit comprising:

means for monitoring an amount of current into the power amplifier of the transmitter unit; and

means for limiting the power produced by the transmitter unit when the amount of current applied to the power amplifier achieves a predetermined threshold.

12. The circuit of claim 11, wherein the transmitter unit comprises a transmitter/receiver (transceiver) unit.

13. The circuit of claim 11 further comprising:

means for providing to a modem associated with the transmitter unit an indication of a strength of a signal transmitted from the transmitter unit to a satellite; and

means for varying the power produced by the transmitter unit in response to the indication of the strength of the signal transmitted from the transmitter unit to the satellite.

14. A transmitter unit power control system for use with satellite-based data communications systems, the transmitter unit power control system comprising:

a modulator circuit for providing a data signal to a transmitter unit;

a power amplifier circuit provided within the transmitter unit for amplifying the data signal and causing the amplified data signal to be transmitted to a satellite via a radio frequency communications link;

a DC current source configured to provide a DC current to at least a final stage of the power amplifier circuit;

a current monitor for monitoring a characteristic of the DC current provided to the final stage of the power amplifier circuit;

a comparator circuit coupled to the current monitor; and

a telemetry circuit coupled to the comparator and a power regulator circuit associated with the transmitter unit.

15. The transmitter unit power control system of claim 14, wherein the current monitor is configured to directly monitor the DC current applied to the final stage of the power amplifier circuit.

16. A method for controlling a level of an input signal applied to a power amplifier of a transmitter unit of a satellite-based telecommunications system, the method comprising:

monitoring a direct current into the power amplifier to determine when the direct current exhibits a predetermined characteristic, and

limiting the level of the input signal applied to the power amplifier when the direct current exhibits the predetermined characteristic.